

Two new species of oribatid mites of *Lasiobelba* (Acari, Oribatida, Oppiidae) from Nepal, including a key to all species of the genus

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Academic editor: Vladimir Pesic | Received 20 May 2014 | Accepted 20 June 2014 | Published 8 July 2014

<http://zoobank.org/D34D9721-67A7-4334-8AA5-A3574FF54BCC>

Citation: Ermilov SG, Shtanchaeva UYa, Subías LS, Martens J (2014) Two new species of oribatid mites of *Lasiobelba* (Acari, Oribatida, Oppiidae) from Nepal, including a key to all species of the genus. ZooKeys 424: 1–17. doi: 10.3897/zookeys.424.7990

Abstract

Two new species of oribatid mites of the genus *Lasiobelba* (Oribatida, Oppiidae), *Lasiobelba (Lasiobelba) daamsae* sp. n. and *Lasiobelba (Antennoppia) nepalica* sp. n., are described from eastern Nepal. *Lasiobelba (L.) daamsae* sp. n. is most similar to *L. (L.) remota* Aoki, 1959 and *L. (L.) gibbosa* (Mahunka, 1985), however, it differs from both by the anterior part of pedotecta I specifically curved, rostrum pointed and exobothridial setae not shorter than bothridial setae. *Lasiobelba (Antennoppia) nepalica* sp. n. is most similar to *L. (A.) granulata* (Mahunka, 1986), however, it differs from the latter by the larger body size, exobothridial setae longer than rostral setae and bothridial setae not longer than interlamellar setae. An identification key to known species of *Lasiobelba* is given.

Keywords

Oribatid mites, new species, *Lasiobelba*, key, Nepal

Introduction

Lasiobelba is a genus of oribatid mites (Oribatida, Oppiidae, Oppiinae) that was proposed by Aoki (1959) with *Lasiobelba remota* Aoki, 1959 as type species. The main generic characters (summarized by Aoki 1959; Subías and Balogh 1989; Ohkubo 2001; including our additions) are: costulae and transcostula absent; prodorsal setae well developed, setiform (exception: interlamellar setae represented by alveoli); bothridial setae spindle-form or setiform; notogaster with nine to 10 pairs of notogastral setae (setae *c* reduced, minute or represented by alveoli); dorsal notogastral setae inserted in four subparallel rows, rarely in two parallel rows; genital plates with five pairs of genital setae; adanal lyrifissures located near to anal aperture.

Currently, *Lasiobelba* comprises two subgenera (*Lasiobelba* (*Lasiobelba*) Aoki, 1959, *Lasiobelba* (*Antennoppia*) Mahunka, 1983 – see Mahunka 1983a) and 32 species, which have a cosmopolitan distribution (Subías 2004, updated 2014). The subgenus *Lasiobelba* (*Lasiobelba*) differs from *Lasiobelba* (*Antennoppia*) by the morphology of bothridial setae (spindle-form versus setiform).

In the course of taxonomic identification of oribatid mites from Nepal¹ (Ermilov et al. 2013, 2014; Ermilov and Martens 2014), we found two new species of the genus *Lasiobelba*; one belonging to *Lasiobelba* (*Lasiobelba*), other to *Lasiobelba* (*Antennoppia*). The first goal of our paper is to describe these species. The second goal of our paper is to present an identification key to all known species of *Lasiobelba*.

Materials and methods

Five specimens (holotype: male; four paratypes: all males) of *Lasiobelba* (*Lasiobelba*) *daamsae* sp. n. are from: eastern Nepal, 27°19'N, 87°78'E, Panchthar District, upper course of Mai Majuwa river, pasture Dhorpar Kharka, soil in mixed broadleaved forest, 2770 m a.s.l., 27–28.VIII.1983, collected by J. Martens and B. Daams. Four specimens (holotype: male; three paratypes: two males and one female) of *Lasiobelba* (*Antennoppia*) *nepalica* sp. n. are from: eastern Nepal, 26°99'N, 86°67'E, Ilam District, soil in remnants of broadleaved forest with plantations of *Cryptomeria japonica*, 2100 m a.s.l., 31.III.–01.IV.1980, collected by J. Martens and A. Ausobsky.

Holotypes and paratypes were mounted in lactic acid on temporary cavity slides for measurement and illustration. The body length was measured in lateral view, from the tip of the rostrum to the posterior edge of the ventral plate. The notogastral width refers to the maximum width in dorsal aspect. Lengths of body setae were measured in lateral aspect. All body measurements are presented in micrometers. Formula for leg setation is given in parentheses according to the sequence trochanter–femur–genu–tibia–tarsus (familus included). Formula for leg solenidia is given in square brackets according to the sequence genu–tibia–tarsus. General terminology used in this paper follows that of Norton and Behan-Pelletier (2009).

¹ Results of the Himalaya Expeditions (1980, 1983) of Dr. Jochen Martens.

Taxonomy

Description of *Lasiobelba (Lasiobelba) daamsae* sp. n.

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Figs 1–9

Diagnosis. Body size: 1278–1310 × 747–863. Rostrum pointed. Prodorsal setae long, barbed; *in* ≈ *le* > *ss* ≈ *ex* > *ro*. Bothridial setae spindle-form, with long, thin apex, barbed. Nine pairs of notogastral setae long, barbed (p_1-p_3 shorter than others). Antero-medial part of rutelli with tooth. Anterior part of pedotecta I specifically curved. Anogenital setae barbed. Dorsal side of leg claws with small teeth.

Description. Measurements. Body length: 1294 (holotype, male), 1278–1310 (four paratypes: males); notogaster width: 796 (holotype), 747–863 (four paratypes).

Integument (Figs 1, 3). Body color light brownish. Body surface smooth, but lateral parts of prodorsum with microgranulate cerotegument (diameter granules less than 1).

Prodorsum (Figs 1–3). Rostrum with conical tooth (*tr*, 12–16). A row, comprising several muscle sigillae, is located in front of the bothridia (usually very poorly visible). Muscle sigilla in interbothridial region absent, but one pair of longitudinal, dark brown structures are present. Rostral (*ro*, 199–232), lamellar (*le*, 365–381), interlamellar (*in*, 365–381) and exobothridial (*ex*, 265–298) setae well developed, setiform, barbed. Bothridial setae (*ss*, 265–298) spindle-form, barbed, with weakly developed elongate head and long, thin apex. A pair of triangular tubercles (*tb*) located posteriorly to bothridia.

Notogaster (Figs 1–3). Anterior border convex. Notogastral setae *c* represented by alveolus. Nine other pairs of notogastral setae long, barbed; p_1-p_3 (215–249) shorter than others (431–481). Lyrifissures *ia* poorly visible, *im*, *ip*, *ih*, *ips* and opisthonotal gland openings present, but visible under high magnification in dissected specimens.

Gnathosoma (Figs 2, 4, 5). Subcapitulum longer than wide (298–315 × 199–215). Antero-medial part of rutelli with tooth (*ts*, 8). Subcapitular setae setiform, barbed; *a* (66–83) shorter than *m* and *h* (both 116–132). Two pairs of adoral setae (*or₁*, *or₂*, 33–49) setiform, hook-like distally, smooth. Palps (199) with setation 0–2–1–3–8(+ω). Solenidion thickened, blunt-ended, pressed to the palptarsus surface in basal part and distal seta in distal part. Chelicerae (298–315) with two barbed setae; *cha* (99) longer than *chb* (66). One short tooth (4–6) located posteriorly to seta *cha*. Trägårdh's organ distinct.

Epimeral and lateral podosomal regions (Figs 1–3). Apodemes (1, 2, *sejugal*, 4) weakly developed. Epimeral setae setiform, barbed; setae *1a*, *2a*, *3a* (83–99) shorter than *1b*, *1c*, *3b*, *4a*, *4b* (149–166) and *3c*, *4c* (199–232). Anterior part of pedotecta I (Pd I) elongate and specifically curved, forming a tooth (*tpd*). Discidia (*dis*) triangular, pointed.

Anogenital region (Figs 2, 3). Five pairs of genital (*g₁–g₃*, 74–83; *g₄*, *g₅*, 108–116), one pair of aggenital (*ag*, 166–199), three pairs of adanal (*ad₁–ad₃*, 166–199) and two pairs of anal (*an₁*, *an₂*, 149–166) setae setiform, barbed. Distance between setae *ad₃*–*ad₃* longer than *ad₂–ad₂* and *ad₁–ad₁*. Adanal lyrifissures *iad* located diagonally, but very close to anal aperture.

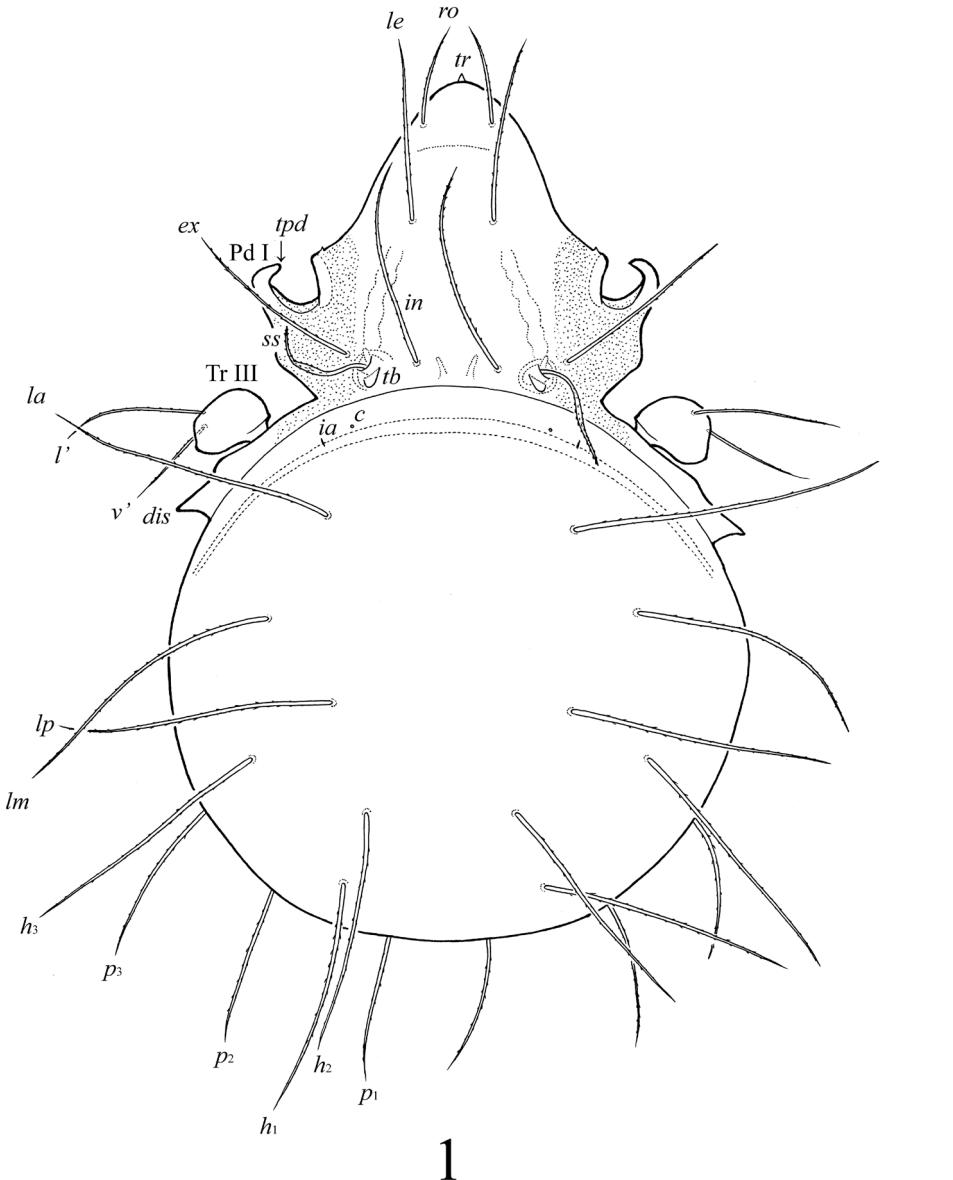
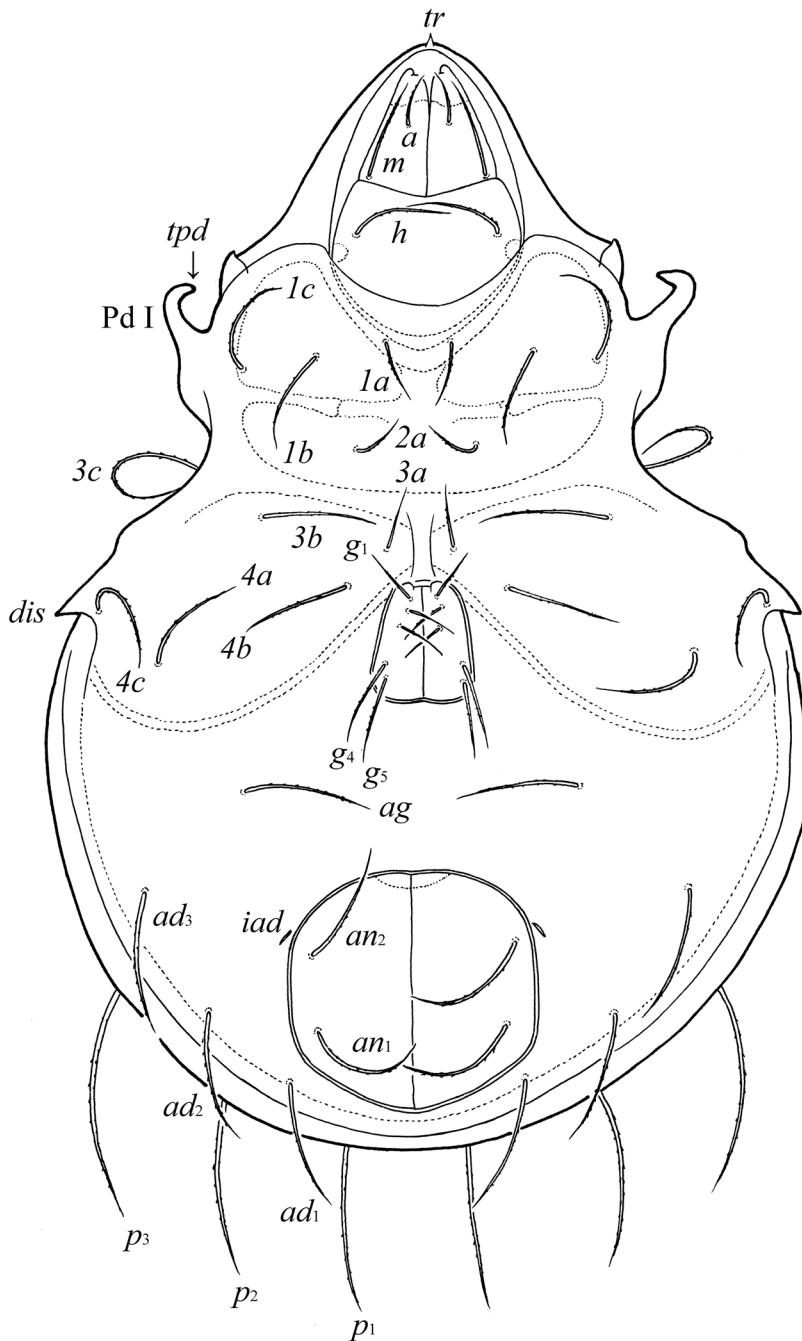


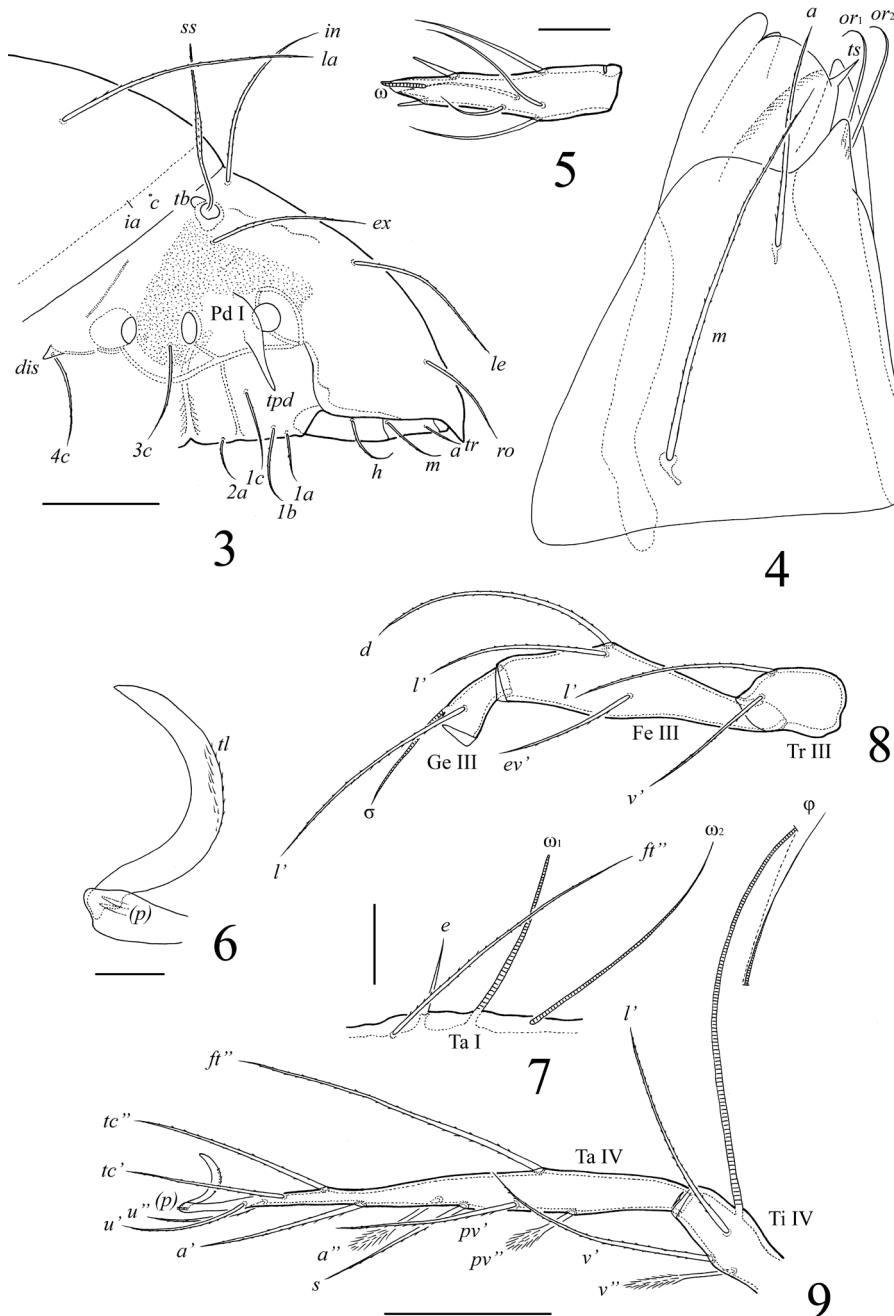
Figure 1. *Lasiobelba (Lasiobelba) daamsae* sp. n.: dorsal view (legs except trochanters III not illustrated). Scale bar 400 μm .

Legs (Figs 1, 6–9). Generally, morphology typical for species of *Lasiobelba* (Bernini 1973; Ohkubo 2001; Ermilov and Kalúz 2012). Dorsal side of each claw in all tarsi with two rows of small teeth (*tl*). Formulae of leg setation and solenidia: I (1–5–2–4–20) [1–2–2], II (1–5–2–4–16) [1–1–2], III (2–3–1–3–15) [1–1–0], IV (1–2–2–3–12) [0–1–0]; homology of setae and solenidia indicated in Table 1. Setae *p* setiform on



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Figure 2. *Lasiobelba (Lasiobelba) daamsae* sp. n.: ventral view (legs not illustrated). Scale bar 400 µm.



Figures 3–9. *Lasiobelba (Lasiobelba) daamsae* sp. n.: **3** lateral view of prodorsum (legs not illustrated) and anterior part of notogaster **4** right retumellum and gena of subcapitulum, ventral view **5** palptarsus **6** leg claw II and setae p **7** localization of solenidia, famulus and seta f'' on tarsus I, right, antiaxial view **8** trochanter, femur and genu of leg III, right, antiaxial view **9** tarsus and anterior part of tibia of leg IV, right, antiaxial view. Scale bars 200 µm (**3**, **8**, **9**), 50 µm (**4**, **7**), 20 µm (**5**, **6**).

Table 1. Leg setation and solenidia of *Lasiobelba (Lasiobelba) daamsae* sp. n. (same data for *Lasiobelba (Antennoppia) nepalica* sp. n.).

Leg	Trochanter	Femur	Genu	Tibia	Tarsus
I	v'	$d, (l), bv'', v''$	$(l), \sigma$	$(l), (v), \varphi_1, \varphi_2$	$(ft), (tc), (it), (p), (u), (a), s, (pv), v', (pl), l'', \varepsilon, \omega_1, \omega_2$
II	v'	$d, (l), bv'', v''$	$(l), \sigma$	$(l), (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv), l'', \omega_1, \omega_2$
III	l', v'	d, l', ev'	l', σ	$l', (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv)$
IV	v'	d, ev'	d, l'	$l', (v), \varphi$	$ft'', (tc), (p), (u), (a), s, (pv)$

Roman letters refer to normal setae (ε to famulus), Greek letters to solenidia. Single prime (') marks setae on anterior and double prime (") setae on posterior side of the given leg segment. Parentheses refer to a pair of setae.

tarsi I, very short, conical on tarsi II–IV. Famulus (ε) setiform, straight, pointed, inserted posteriorly to solenidion ω_1 .

Type deposition. The holotype and one paratype are deposited in the collection of the Senckenberg Institution Frankfurt, Germany; three paratypes are deposited in the collection of the Tyumen State University Museum of Zoology, Tyumen, Russia.

Etymology. The specific name is dedicated to Mrs. Beate Daams for her assistance in Nepalese scientific researches.

Remarks. In having the long notogastral setae, large body size and spindle-form bothridial setae, *Lasiobelba (Lasiobelba) daamsae* sp. n. is most similar to *L. (L.) remota* Aoki, 1959 from the Oriental and Palaearctic regions and *Lasiobelba (Lasiobelba) gibbosa* (Mahunka, 1985) from the Ethiopian region. However, it differs from both by the anterior part of pedotecta I specifically curved (versus straight in *L. (L.) remota* and *L. (L.) gibbosa*), rostrum pointed (versus rounded in *L. (L.) remota* and nasiform in *L. (L.) gibbosa*) and exobothridial setae not shorter than bothridial setae (versus shorter in *L. (L.) remota* and *L. (L.) gibbosa*).

Description of *Lasiobelba (Antennoppia) nepalica* sp. n.

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Figs 10–15

Diagnosis. Body size: 996–1278 × 697–830. Prodorsal setae long, barbed; $ss \approx in > le > ex > ro$. Nine pairs of notogastral setae long, barbed (p_1-p_3 shorter than others). Antero-medial part of rutelli with tooth. Anogenital setae barbed. Dorsal side of leg claws with small teeth.

Description. Measurements. Body length: 1195 (holotype, male), 996–1278 (three paratypes: two males and one female); notogaster width: 730 (holotype), 697–830 (three paratypes).

Integument (Figs 10, 12). Body color light brownish. Body surface smooth, but lateral parts of prodorsum with microgranulate cerotegument (diameter granules up to 1).

Prodorsum (Figs 10, 12). Rostrum widely or narrowly rounded. A row, comprising several muscle sigillae, is located in front of the bothridia. One pair of muscle sigilla in

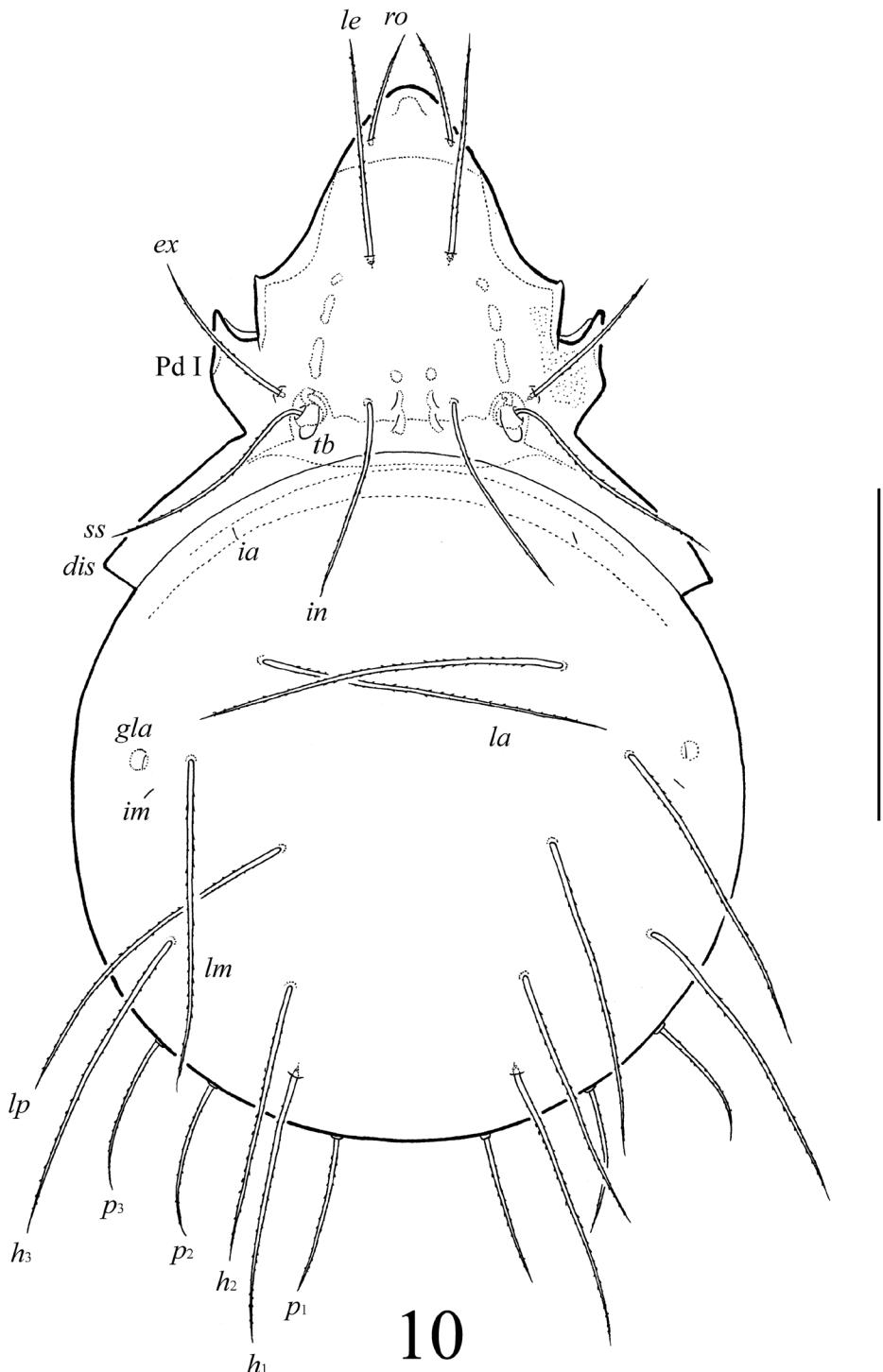
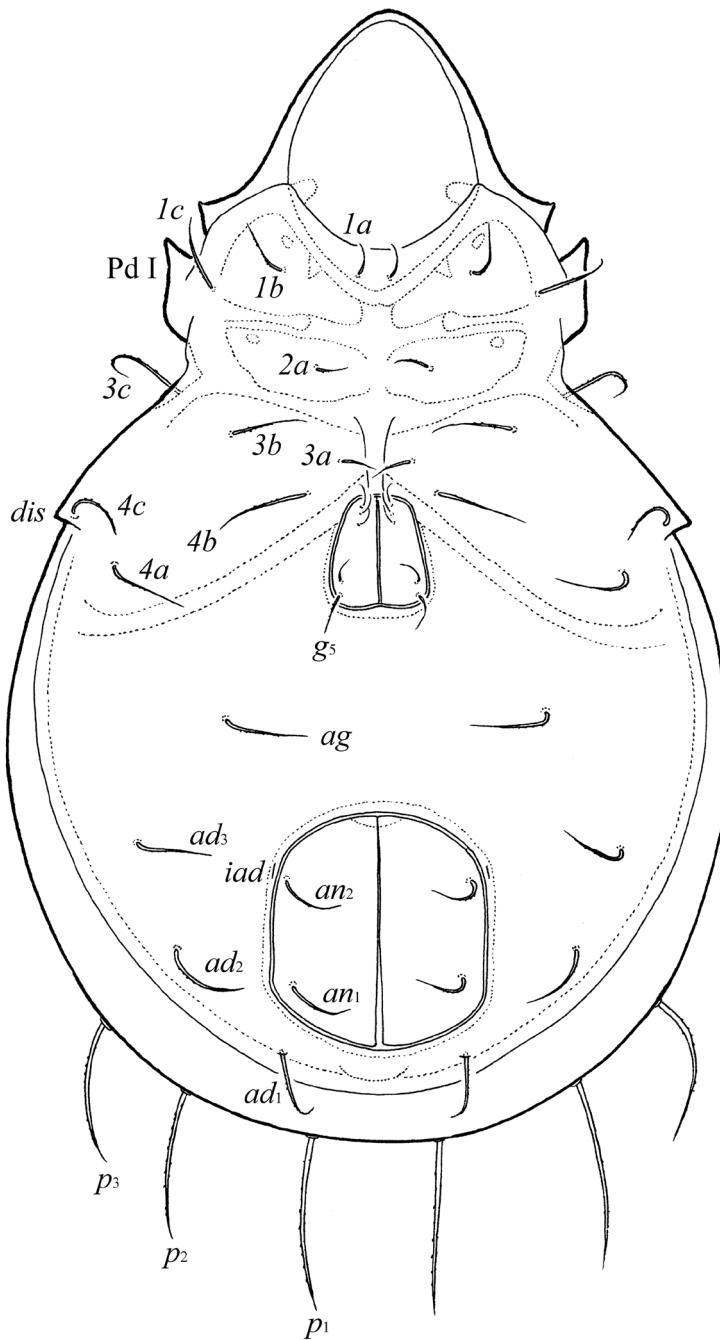
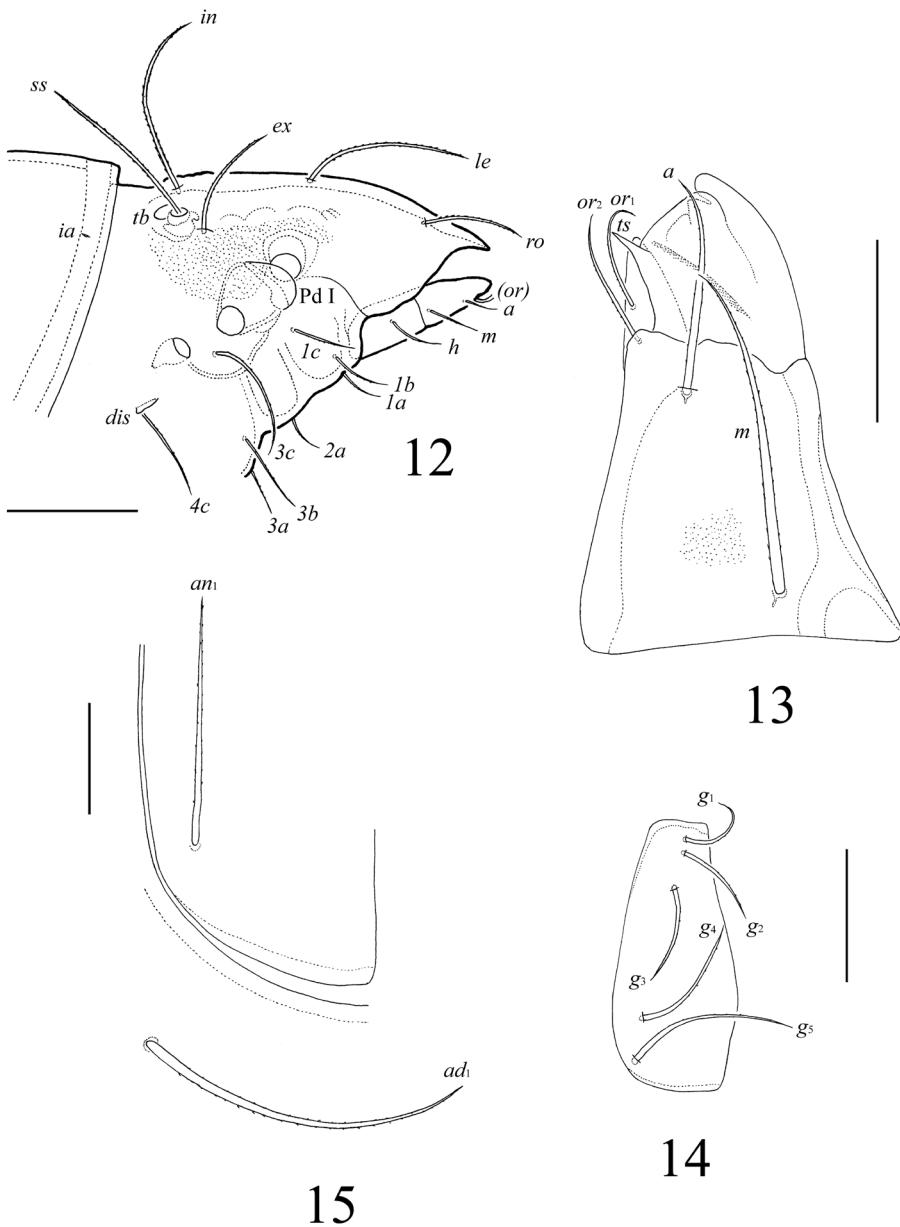


Figure 10. *Lasiobelba (Antennoppia) nepalica* sp. n.: dorsal view (legs not illustrated). Scale bar 400 µm.



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Figure 11. *Lasiobelba (Antennoppia) nepalica* sp. n.: ventral view (gnathosoma and legs not illustrated). Scale bar 400 µm.



Figures 12–15. *Lasiobelba (Antennoppia) nepalica* sp. n.: **12** lateral view of prodorsum (legs not illustrated) and anterior part of notogaster **13** left rutellum and gena of subcapitulum, ventral view **14** genital plate, right **15** posterior part of anal plate with seta *an₁* and adanal seta *ad₁*. Scale bar 50 µm.

interbothridial region poorly visible. Rostral (143–164), lamellar (254–287), interlamellar (307–348), exobothridial (205–258) and bothridial (307–348) setae well developed, setiform, barbed. A pair of triangular tubercles located posteriorly to bothridia.

Notogaster (Figs 10–12). Anterior border convex. Notogastral setae *c* and their alveoli reduced. Nine pairs of notogastral setae long, barbed; *p₁–p₃* (184–192) shorter than *h₁*, *h₂* (265–332) and others (398–464). Lyrifissures *ia*, *im* and opisthonotal gland openings (*gla*) poorly visible; lyrifissures *ip*, *ih*, *ips* present, but visible under high magnification in dissected specimens.

Gnathosoma (Figs 12, 13). Subcapitulum longer than wide (266 × 199–209). Antero-medial part of rutelli with tooth (8–10). Subcapitular setae setiform, barbed; *a* (61–65) shorter than *m* and *h* (both 98–102). Two pairs of adoral setae (41–45) setiform, indistinctly smooth. Palps (196) with setation 0–2–1–3–8(+ω). Solenidion thickened, blunt-ended, pressed to the palptarsus surface in basal part and distal seta in distal part. Chelicerae (266) with two barbed setae; *cha* (86) longer than *chb* (53). One short tooth (4–6) located posteriorly to seta *cha*. Trägårdh's organ distinct.

Epimeral and lateral podosomal regions (Figs 10–12). Apodemes (1, 2, *sejugal*, 4) weakly developed. Epimeral setae setiform, barbed; setae *1a*, *2a*, *3a* (69–86) shorter than *1b*, *1c*, *3b*, *4a*, *4b* (114–127), *3c* (205–209) and *4c* (155–164). Pedotecta I normally developed, scale-like. Discidia triangular, pointed.

Anogenital region (Figs 11, 14, 15). Five pairs of genital setae (*g₁–g₃*, 41–53; *g₄*, 61–69, *g₅*, 73–82) setiform, indistinctly barbed. One pair of aggenital (123–135), three pairs of adanal (159–172) and two pairs of anal (114–123) setae setiform, barbed. Distance between setae *ad₃–ad₃* longer than *ad₂–ad₂* and *ad₁–ad₁*. Adanal lyrifissures *iad* located longitudinally.

Legs. Generally, similar to *Lasiobelba* (*Lasiobelba*) *daamsae* sp. n. (see also Table 1).

Type deposition. The holotype and one paratype are deposited in the collection of the Senckenberg Institution Frankfurt, Germany; two paratypes are deposited in the collection of the Tyumen State University Museum of Zoology, Tyumen, Russia.

Etymology. The specific name “*nepalica*” refers to the country origin, Nepal.

Remarks. In having the long prodorsal and notogastral setae and large body size, *Lasiobelba* (*Antennoppia*) *nepalica* sp. n. is most similar to *L. (A.) granulata* (Mahunka, 1986) from Tanzania. However, it clearly differs from the latter by the larger body size (996–1278 × 697–830 versus 820–861 × 541–574 in *L. (A.) granulata*), exobothridial setae longer than rostral setae (versus rostral longer in *L. (A.) granulata*) and bothridial setae not longer than interlamellar setae (versus clearly longer in *L. (A.) granulata*).

Key to known species of *Lasiobelba*²

1	Bothridial setae spindle-form 2, subgenus <i>Lasiobelba</i> (<i>Lasiobelba</i>)
–	Bothridial setae setiform 18, subgenus <i>Lasiobelba</i> (<i>Antennoppia</i>)
2	Dorsal notogastral setae long, <i>lm</i> reaching the insertions of <i>lp</i> 3
–	Dorsal notogastral setae of medium size or short, <i>lm</i> not reaching the insertions of <i>lp</i> 13

² *Lasiobelba* (*Antennoppia*) *rigida* was very poorly described by Ewing (1909), therefore we did not include this species in the key.

3	Notogastral setae <i>la</i> , <i>lm</i> , <i>lp</i> longer than bothridial setae.....	4
—	Notogastral setae <i>la</i> , <i>lm</i> , <i>lp</i> shorter than bothridial setae.....	10
4	Rostrum pointed	5
—	Rostrum widely or narrowly rounded, or truncated	6
5	Anterior part of pedotecta I specifically curved; notogastral setae <i>p</i> ₁ – <i>p</i> ₃ longer than adanal setae; body size: 1278–1310 × 747–863	
— <i>Lasiobelba (Lasiobelba) daamsae</i> sp. n. Distribution: Nepal	
—	Pedotecta I normally developed; notogastral setae <i>p</i> ₁ – <i>p</i> ₃ shorter than adanal setae; body size: 772–891 × 410–456..... <i>Lasiobelba (Lasiobelba) gibbosa</i> (Mahunka, 1985). Distribution: Ethiopian region	
6	Interlamellar setae similar in length (little longer or shorter) to bothridial setae.....	7
—	Interlamellar setae clearly shorter than bothridial setae.....	9
7	Rostrum truncated; body size: 794–834 × 492–564	
— <i>Lasiobelba (Lasiobelba) insulata</i> Ohkubo, 2001. Distribution: Japan	
—	Rostrum widely or narrowly rounded	8
8	Rostrum widely rounded; notogastral setae <i>p</i> ₁ – <i>p</i> ₃ inserted close to each other; body size: 560 × 330	
— <i>Lasiobelba (Lasiobelba) subuligera</i> (Berlese, 1916) (see also Mahunka and Mahunka-Papp 1995). Distribution: Argentina	
—	Rostrum with protruding ledge; notogastral setae <i>p</i> ₁ – <i>p</i> ₃ clearly distanced from each other; body size: 940–1030 × 620–650	
— <i>Lasiobelba (Lasiobelba) remota</i> Aoki, 1959. Distribution: Palaearctic and Oriental regions	
9	Bothridial setae with head without long apex; interbothridial region with two pairs of muscle sigilla; body size: 950 × 630	
— <i>Lasiobelba (Lasiobelba) suchetae</i> Sanyal, 1992. Distribution: India	
—	Bothridial setae with long, thin apex; interbothridial region without muscle sigilla; body size: 625–684 × 388–437 <i>Lasiobelba (Lasiobelba) vietnamica</i> Balogh, 1983 (see Balogh and Mahunka 1967). Distribution: Vietnam	
10	Notogastral setae <i>c</i> short, present	11
—	Notogastral setae <i>c</i> represented by alveoli	12
11	Anterior part of notogaster smooth; epimeral setae <i>1a</i> , <i>2a</i> , <i>3a</i> thin, almost smooth; body size: 478–522 × 277–315	
—	.. <i>Lasiobelba (Lasiobelba) lemurica</i> Mahunka, 1997. Distribution: Madagascar	
—	Anterior part of notogaster microfoveolate; epimeral setae <i>1a</i> , <i>2a</i> , <i>3a</i> heavily barbed; body size: 566 × 307	
12	. <i>Lasiobelba (Lasiobelba) pontica</i> Vasiliu & Ivan, 2011. Distribution: Romania	
—	Body surface of notogaster with longitudinal ridges; interbothridial region with one pair of tubercles; body size: 693 × 455	
—	... <i>Lasiobelba (Lasiobelba) sculptra</i> Wang, 1993. Distribution: southern China	
—	Body surface of notogaster granulate; interbothridial region without tubercles; body size: 610–644 × 386–402	
—	.. <i>Lasiobelba (Lasiobelba) yunanensis</i> Wen, 1999. Distribution: southern China	

13	Notogastral setae <i>c</i> represented by alveoli.....	14
—	Notogastral setae <i>c</i> short, present	15
14	Notogastral setae smooth; body length: 468 <i>Lasiobelba (Lasiobelba) bespiridiana</i> (Pérez-Íñigo, 1986). Distribution: Mediterranean	
—	Notogastral setae barbed; body size: 787–825 × 495–539 <i>Lasiobelba (Lasiobelba) rubida</i> (Wallwork, 1977). Distribution: Santa Helena Islands	
15	Interlamellar setae shorter than lamellar setae; body size: 413–600 × 228–336..... <i>Lasiobelba (Lasiobelba) pori</i> (Vasiliu & Ivan, 1995) (= <i>Lasiobelba arabica</i> Mahunka, 2000, = <i>Lasiobelba (Lasiobelba) neonominata</i> Subías, 2004 (see Kok 1967) ³). Distribution: Ethiopian and Palaearctic regions, Hawaii	
—	Interlamellar setae longer or similar in length to lamellar setae.....	16
16	Rostrum tripartite; interbothridial region with three pairs of muscle sigilla; body size: 500–540 × 253	
— <i>Lasiobelba (Lasiobelba) decui</i> (Vasiliu et Ivan, 1995). Distribution: Israel	
—	Rostrum rounded; interbothridial region with two pairs of muscle sigilla .	17
17	Bothridial setae with numerous barbs; notogastral setae <i>p</i> ₃ longer than <i>p</i> ₁ and <i>p</i> ₂ ; body size: 400–530 × 215–280. <i>Lasiobelba (Lasiobelba) arcidiaconoae</i> (Bernini, 1973). Distribution: Mediterranean, India	
—	Bothridial setae with several short barbs; notogastral setae <i>p</i> ₃ similar in length to <i>p</i> ₁ and <i>p</i> ₂ ; body size: 313 × 233 <i>Lasiobelba (Lasiobelba) kuehnelti</i> (Csiszár, 1961). Distribution: Oriental, Australian and Ethiopian regions	
18	Heterotrichy of dorsal notogastral setae well developed, <i>la</i> and <i>lm</i> considerably longer than <i>lp</i>	19
—	Heterotrichy of dorsal notogastral setae absent or weakly expressed, <i>la</i> and <i>lm</i> not longer than <i>lp</i>	20
19	Notogastral setae <i>la</i> long, reaching the insertions of <i>lp</i> ; lamellar setae longer than rostral setae; body size: 456 × 216..... <i>Lasiobelba (Antennoppia) quadrisetosa</i> Subías, 1989 – see Subías and Balogh 1989 (see also Mahunka 2001). Distribution: Greece	
—	Notogastral setae <i>la</i> of medium size, not reaching the insertions of <i>lp</i> ; lamellar setae shorter than rostral setae; body size: 498–547 × 298–332... <i>Lasiobelba (Antennoppia) chistyakovi</i> Ermilov & Kalúz, 2012. Distribution: Ecuador	
20	Dorsal notogastral setae long, <i>lm</i> reaching the insertions of <i>lp</i>	21
—	Dorsal notogastral setae of medium size or short, <i>lm</i> not reaching the insertions of <i>lp</i>	29
21	Notogastral setae <i>la</i> , <i>lm</i> , <i>lp</i> longer or similar in length to bothridial setae	22
—	Notogastral setae <i>la</i> , <i>lm</i> , <i>lp</i> shorter than bothridial setae.....	25
22	Apodemes IV absent; adanal lyrifissures located diagonally to anal aperture; body size: 745 × 510.....	
 <i>Lasiobelba (Antennoppia) insignis</i> Balogh, 1970. Distribution: New Guinea	

³ *Lasiobelba (Lasiobelba) pori*, *L. (L.) arabica* and *L. (L.) neonominata* Subías, 2004 (=*Oppia yodai africana* Kok, 1967 "nom. praeoc." by Evans, 1953) morphologically are very similar among themselves. We have found any significant morphological differences. Hence, we suggest that *L. (L.) arabica* and *L. (L.) neonominata* Subías, 2004 are junior subjective synonyms of *L. (L.) pori*.

— Apodemes IV present; adanal lyrifissures located longitudinally to anal aperture 23

23 Bothridial setae smooth; body size: 590 × 330
... *Lasiobelba (Antennoppia) subnitida* (Sellnick, 1924). Distribution: Brazil

— Bothridial setae barbed 24

24 Exobothridial setae longer than rostral setae; bothridial setae similar in length to interlamellar setae; body size: 996–1278 × 697–830
..... *Lasiobelba (Antennoppia) nepalica* sp. n. Distribution: Nepal

— Exobothridial setae shorter than rostral setae; bothridial setae longer than interlamellar setae; body size: 820–861 × 541–574 *Lasiobelba (Antennoppia) granulata* (Mahunka, 1986). Distribution: Tanzania

25 Rostrum pointed; body size: 715–800 × 448–486 *Lasiobelba (Antennoppia) major* (Mahunka, 1983), see Mahunka 1983a. Distribution: Tanzania

— Rostrum rounded 26

26 Interlamellar setae represented by alveoli; body size: 590–623 × 232–250
..... *Lasiobelba (Antennoppia) trichoseta* (Mahunka, 1983), see Mahunka 1983b. Distribution: Tanzania

— Interlamellar setae well developed 27

27 Dorsal notogastral setae inserted in four subparallel rows; interbothridial region with one pair of triangular ridges; body size: 810–1180 × 510–526
.. *Lasiobelba (Antennoppia) yoshii* (Mahunka, 1987). Distribution: Borneo

— Dorsal notogastral setae inserted in two parallel rows; interbothridial region without triangular ridges 28

28 Interlamellar setae longer than lamellar setae; interbothridial region with three pairs of muscle sigilla; body size: 740 × 450
. *Lasiobelba (Antennoppia) capilligera* (Berlese, 1916) (see also Mahunka 1991). Distribution: Ethiopian region

— Interlamellar setae slightly shorter than lamellar setae; interbothridial region without muscle sigilla; body size: 555–652 × 314–367 *Lasiobelba (Antennoppia) minor* (Mahunka, 1983), see Mahunka 1983a. Distribution: Tanzania

29 Notogastral setae c represented by alveoli; rostrum with protruding ledge; body size: 565–605 × 315–335 *Lasiobelba (Antennoppia) ultraciliata* (Jacot, 1934). Distribution: Australian region

— Notogastral setae c short, present; rostrum rounded, without protruding ledge 30

30 Interlamellar setae similar in length to lamellar setae; exobothridial setae similar in length to rostral setae, respectively; body size: 347 × 185 ... *Lasiobelba (Antennoppia) heterosa* (Wallwork, 1964). Distribution: Ethiopian and Palaearctic regions

— Interlamellar setae longer than lamellar setae; exobothridial setae shorter than rostral setae; body size: 525–637 × 288–337 *Lasiobelba (Antennoppia) izquierdoae* Arillo, Gil-Martin & Subías, 1994. Distribution: Canary Islands

Acknowledgements

The authors are thankful to two anonymous reviewers for valuable comments on the manuscript. J. Martens thanks B. Daams and A. Ausobsky for helpful companionship during the Nepalese expeditions, as well as the Feldbausch Foundation and the Wagner foundation at Fachbereich Biologie of Mainz University for over the years many annual grants to carry out field work in Asia.

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